

## 1. PERFORMANCE

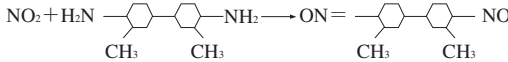
- 1) Measuring range : NO ; 10-300 ppm    NO<sub>2</sub> ; 1-40 ppm  
     Number of pump strokes : 1 (100ml)
- 2) Sampling time : 1.5 minutes/1 pump stroke
- 3) Detectable limit : NO ; 1 ppm    NO<sub>2</sub> ; 0.5 ppm
- 4) Shelf life : 2 years
- 5) Operating temperature : 10 ~ 30°C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Concentration chart method
- 8) Colour change : NO ; White → Yellowish orange  
     NO<sub>2</sub>; White → Pale yellowish orange

## 2. RELATIVE STANDARD DEVIATION

NO ; RSD-low : 10%    RSD-mid. : 10%    RSD-high : 10%  
 NO<sub>2</sub>; RSD-low : 10%    RSD-mid. : 10%    RSD-high : 5%

## 3. CHEMICAL REACTION

NO ; By reacting with an Oxidizer, NO<sub>2</sub> is produced.  
 $NO + CrO_3 + H_2SO_4 \rightarrow NO_2$   
 NO<sub>2</sub>; By reacting with *o*-Toluidine, Nitroso-*o*-Toluidine is produced.



## 4. CALIBRATION OF THE TUBE

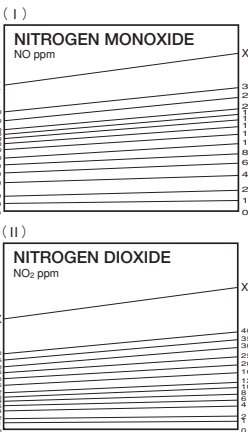
NO ; STANDARD GAS CYLINDER METHOD  
 NO<sub>2</sub> ; PERMEATION TUBE METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Chlorine	Similar stain is produced.	1	Higher readings are given.

## NITROGEN OXIDES CONCENTRATION CHART

Sampling Gas Volum 100ml



(I) NO TEMPERATURE CORRECTION TABLE

Chart Readings (ppm)	NO True Concentration (ppm)											
	10°C 50°F	12°C 53.6°F	14°C 57.2°F	16°C 60.8°F	18°C 64.4°F	20°C 68°F	22°C 71.6°F	24°C 75.2°F	26°C 78.8°F	28°C 82.4°F	30°C 86°F	
300	—	—	—	—	300	270	245	220	200	190	180	
280	—	—	—	—	280	250	230	210	190	180	170	
260	—	—	—	—	300	280	235	215	195	180	170	
240	—	—	—	—	280	240	215	195	180	170	160	
220	—	—	—	—	300	250	220	195	180	170	160	
200	—	—	—	—	290	230	200	185	165	155	145	
180	—	—	—	—	300	250	200	180	165	150	140	
160	—	—	—	—	310	260	215	180	160	150	140	
140	—	—	—	—	310	260	220	185	155	140	130	
120	—	—	—	—	260	215	180	155	135	120	110	
100	—	—	—	—	210	185	150	130	110	100	90	
80	—	—	—	—	160	140	120	100	87	80	72	
60	—	—	—	—	100	90	80	70	64	60	57	
40	—	—	—	—	60	56	52	48	43	40	38	
20	—	—	—	—	30	28	26	24	22	20	20	
10	—	—	—	—	10	10	10	10	10	10	10	

(II) NO<sub>2</sub> TEMPERATURE CORRECTION TABLE

Chart Readings (ppm)	NO <sub>2</sub> True Concentration (ppm)											
	10°C 50°F	12°C 53.6°F	14°C 57.2°F	16°C 60.8°F	18°C 64.4°F	20°C 68°F	22°C 71.6°F	24°C 75.2°F	26°C 78.8°F	28°C 82.4°F	30°C 86°F	
40	—	—	—	—	40	39	38	37	37	36	36	
38	—	—	—	—	39	38	37	36	35	35	34	
36	—	—	—	—	38	37	36	35	34	34	33	
34	—	—	—	—	39	37	36	35	34	33	32	
32	—	—	—	—	39	37	35	34	33	32	31	
30	—	—	—	—	36	34	33	32	31	30	29	
28	—	—	—	—	33	32	31	30	29	28	27	
26	—	—	—	—	31	30	29	28	27	26	25	
24	—	—	—	—	28	27	26	25	24	24	23	
22	—	—	—	—	26	25	24	23	22	22	21	
20	—	—	—	—	24	23	22	21	20	20	19	
18	—	—	—	—	21	20	19	18	18	18	17	
16	—	—	—	—	19	18	17	17	16	16	15	
14	—	—	—	—	17	16	15	15	14	14	14	
12	—	—	—	—	14	13	13	12	12	12	12	
10	—	—	—	—	12	12	11	11	10	10	10	
8	—	—	—	—	10	9	8	8	8	8	8	
6	—	—	—	—	7	7	6	6	6	6	6	
4	—	—	—	—	4	4	4	4	4	4	4	
2	—	—	—	—	2	2	2	2	2	2	2	